

Ebert - DNR, Jared <jared.ebert@state.co.us>

Henderson Development, M-1980-110, Inspection

Derek Slack <dslack@e-470.com> To: "Ebert - DNR, Jared" <jared.ebert@state.co.us> Mon, Jul 29, 2019 at 4:13 PM

Jared,

Thanks for meeting with me the other day. I have looked through the files and found the two seed mixes that were used. One for the initial seeding and one for the reseeding. I believe that the DRMS preferred mix that I found in the file is what we should have been using and should use in the future for reseeding, please confirm.

I also attached the well abandonment notice since it talks about the pits that were excavated to determine if the water was ground water or surface water. Hopefully the water that we saw is an anomaly because of the moisture that we have had this year. We will continue to monitor the water levels and determine if any actions are needed.

I will work with our contractor and develop a weed control plan for the area. Do you need me to submit the plan or are you just concerned with the outcome?

Thanks again for your time.

Derek Slack, P.E.

Roadway Maintenance Manager

E-470 Public Highway Authority

O 303-537-3710

C 303-838-8311

CONFIDENTIALITY NOTICE

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BISHOP-BROGDEN ASSOCIATES, INC.

Christopher J. Sanchez Jeffrey A. Clark Daniel O. Niemela Jonathan D. George Michael A. Sayler Charles E. Stanzione

July 15, 2016

Ms. Ioana Comaniciu, P.E. State Engineer's Office 1313 Sherman Street, Suite 818 Denver, CO 80203

Re: Closeout Notice and Well Abandonment for Sandy Acres Pit, SWSP ID 3102 (Division 1)

Dear Ms. Comaniciu:

On behalf of our client, E-470 Public Highway Authority ("E-470"), this letter provides notice to the Division of Water Resources regarding completion of backfilling efforts at the Sandy Acres Pit, a former gravel mining operation near Henderson, Colorado. The former pit is currently permitted as "Henderson Development" under Colorado Division of Reclamation, Mining and Safety ("DRMS") Permit No. M-1980-110. Depletions to the South Platte River from evaporation of exposed ground water at Sandy Acres have been replaced under Substitute Water Supply Plan No. 3102 since 2014.

Backfill of Existing Pit

In 2014, E-470 requested and received approval for an amendment to the existing DRMS permit for Sandy Acres to modify the reclamation plan such that the former gravel pit would be backfilled with inert fill material from an adjacent gravel pit.¹ The backfilling effort began in 2015 and was completed in Spring 2016, with inert fill material placed and compacted such that no exposed ground water remained within the site. Disturbed areas will be vegetated with native seed as required by the amended DRMS permit.

Zero Exposed Groundwater and Well Abandonment

The Sandy Acres site is situated between US Highway 85, E-470 tollway and Nome Street (part of the highway interchange). All three of the surrounding roadways are at higher elevation than the Sandy Acres site, and a portion of the storm water runoff from these roadways is directed toward the Sandy Acres site via culverts, swales and sheet flows. Following completion of the backfilling effort to restore the surface grade at Sandy Acres, the site necessarily remains a low-lying area compared with the surrounding roadways, and surface runoff may from time to time collect within the extents of the former gravel pit. However, collection of surface runoff within the site does not constitute ongoing exposure of ground water.

On July 1, 2016, a small amount of surface runoff was ponded within the Sandy Acres site. To confirm the ponded water was not directly connected to local ground water, several test holes were excavated adjacent to the ponded area as shown in the table below.

¹ Amendment No. 6 (AM-06) to DRMS Permit No. 1980-110. See also Technical Revision No. 3 (TR-03).

| Test Hole | Distance from | Hole Depth Below | Depth to Water in | Depth to Water in |
|-----------|---------------|------------------|-------------------|-------------------|
| Number | Ponded Area | Ponded Surface | Hole (7/1) | Hole (7/5) |
| 1 | 50 | 4.36 | Dry | Dry |
| 2 | 25 | 4.76 | Dry | Dry |
| 3 | 25 | 5.75 | Dry | Dry |

All values in feet.

Three test holes were excavated to depths of 4.4 to 5.8 feet below the ponded area water level on July 1, 2016. If the ponded water on the surface on that date had been exposed ground water, the ground water level adjacent to that ponded area would be very close to the surface water elevation. However, ground water was not encountered in any of the three test holes near the ponded area on that date. The test holes remained dry four days later on July 5.

Based on these test hole observations and a final grade surface elevation above the former high water line throughout the site, zero exposed ground water remains within the permit boundaries of the former Sandy Acres Pit. Attached please find a Well Abandonment Report (GWS-09) associated with the now-backfilled Sandy Acres Pit (Well Permit No. 78820-F).

Future SWSP Operations

The accounting for SWSP No. 3102 will be revised to reflect the above-described reduction in exposed ground water area to zero and the associated elimination of ongoing ground water evaporation. Although the backfilling was completed at an earlier date in 2016, this accounting adjustment will conservatively take effect beginning on July 1, 2016 to coincide with the ground water influence test described above.

The next request for renewal for SWSP No. 3102 will also reflect the cessation of ground water evaporation at Sandy Acres. Stream depletions identified in the forthcoming request for renewal and subsequent renewals will reflect only the ongoing lagged depletions from previous evaporative losses.

We request <u>written confirmation</u> from your office regarding receipt of this notice and transition of the Sandy Acres SWSP from ongoing evaporation to lagged depletions from prior evaporation only. Please don't hesitate to contact me with any questions, comments or concerns in the meantime.

Very Truly Yours,

BISHOP-BROGDEN ASSOCIATES, INC.

Austin Malotte, P.E. Project Manager – Water Resources Engineer

APM/jeb Enclosures cc: Brent Schantz, Division 1 River Ops Coordinator Neil Thomson Austin Hamre Division 1 Accounting email 9607.00

| GWS-09 821 Centennial Bldg., 1313 Sherma 4/2012 (303) 866-3581 Fax (303) 866-358 | E OF THE STATE ENGINEER an St., Denver, CO 80203 9 <u>dwrpermitsonline@state.co.us</u> | For Office Use Only |
|--|--|---|
| WELL ABANDONM Use to report plugging and sealing of permitted wells, mor computer generated, typed or printed in black or blue ink. reverse side of form. | nitoring and other holes. This form can be | |
| Well Permit Number of the well being plu MH File Number MH Hole II | | |
| Individual/Company responsible for plugging a | and sealing the well: | |
| Name(s) E-470 Public Highway Authority C/O | Bishop-Brogden Associates, Inc. | |
| Mailing Address 333 West Hampden Avenue, S | Suite 1050 | |
| City, St., Zip Englewood, CO 80110 | | |
| Phone (area code & no.) <u>303.806.8952</u> Em | nail:_amalotte@bbawater.com | |
| Well (Hole) Owner: | | 1 |
| NAME(S) E-470 Public Highway Authority | Phone (include | e area code) 303.537.3712 |
| Mailing Address, City, St., Zip 22470 East 6th Pa | arkway, Suite 110 | |
| ACTUAL WELL LOCATION: County Adams Property Address, City, St, Zip N/A (former grave 1/4 of the SE 1/4, Sec. 26 , Twp. 1 | l pit) □ N. or ⊠ S., Range_ <u>67</u> □ E. | or 🗷 W.,_6th P.M. |
| Distance from Section Lines <u>N/A</u> Ft. from | | |
| | Lot, Block, Fili | ng/Unit |
| | \square ; Units must be meters; Datum must be N | AD83; Unit must be set to true north. |
| Easting Northing | | |
| Easting Northing I (we) report the existing well (hole) was plugged and the existing well (hole) was plugged and the exist of the ex | nd sealed on the date of | AD83; Unit must be set to true north. |
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E-470 Public Highway Authority 22470 E. 6th Parkway, Suite 100 Aurora, CO 80018 303.537.3700 Phone 303.537.3472 Fax Adams County Arapahoe County Aurora, CO Brighton, CO Commerce City, CO Douglas County Parker, CO Thomton, CO

October 15, 2014

Colorado Division of Water Resources 1313 Sherman Street #818 Denver, CO 80203

To Whom it May Concern:

This letter authorizes Bishop-Brogden Associates, Inc. to act as agent for E-470 Public Highway Authority with regard to matters involving water well permit applications and other necessary filings or correspondence with the Division of Water Resources regarding well permitting and registration.

Sincerely,

Neil G. Thomson P.E. Director of Engineering and Roadway Maintenance E-470 Public Highway Authority

NT/pd



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SEEDING SPECIFICATIONS

The fertilizer application for seed mix shall be diammonium phosphate (18-46-0) applied at the rate of 200 lbs/acre. \$ 205° /4C

Seed Mix

| COMMON NAME - GRASSES | Drilled Ibs PLS/Acre | | |
|-----------------------|----------------------|--|--|
| Sideoats Grama | 1.00 | | |
| Western Wheatgrass | 6.00 | | |
| Thickspide Wheatgrass | 4.00 | | |
| Streambank Wheatgrass | 4.00 | | |
| Buffalo Grass | 2.00 | | |
| Sand Dropseed | | | |
| Indian Grass | .50 | | |
| Switchgrass | 1.50 | | |
| Little Bluestem | .50 | | |
| Sand Bluestem | .20 | | |
| Prairie Sandreed | 1.00 | | |
| Indian Ricegrass | ź 1.50 | | |
| TOTAL Ibs PLS/Acre | 22.50 | | |
| COMMON NAME - FORBS | | | |
| Purple Prairle Clover | .30 | | |
| Blue Flax | 1.00 | | |
| Yarrow | .10 | | |
| Prairie Coneflower | .30 | | |
| Perennial Gaillardia | .50 | | |
| Prairie Aster | .30 | | |
| TOTAL Ibs PLS/Acre | 2.50 | | |

Arkansas Valley Seed Solutions 4333 Hwy 66 Longmont, CO 80504 Phone No: (877) 907-3337 Fax No: (970) 535-4522 Web site: www.avseeds.com . Delivery is available via UPS .

Revised 12/11/02

| Granite Seed - Denver From 490 East 76th Ave., Unit A Denver, CO 80229 Mix Name Brannan, Sandy Acres | an all i | Brannan- Si | 11 of 27 3-26956 |
|---|--|--|-----------------------------------|
| Mix # 171455 | Variety | 0+DorH | Ongin |
| 43.71 ALKALIGRASS 37.96 ALKALIGRASS 6.28 TALLWHEATGRASS 5.17 PRAIRIE CORDGRASS 14 KALIGRASS, NUTTAL 0.93 ILKALIGRASS, NUTTAL | VNS VNS Alkar Red River VNS VNS | 90 + 0 = 98 32 + 64 = 96 93 + 0 = 93 37 + 58 = 95 78 - TZ 93 - TZ | ND NM SD NM CAN UT |
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No claim shall be essented against the labeled seller unless Buyer reports to the labeled seller within a reasonable peoid after discovery (not to access thirty days), any condition that high lead to a complete. BUYER'S EXCUSIVE REMEDY FOR ANY CLAIM OR LOSS RESULTING FROM BREACH OF WARRANTY, BREACH OF CONTRACT OR NEGLIGENCE (INCLUDING BUT NOT UNITED TO INCIDENTAL OR CONSEQUENTIAL DAWAGES) SHALL BE LIMTED TO REPAYMENT OF THE DISCUSSE BUTS. PURCHASE PRICE. 1 1

By acceptance of the seed, Buyer by see the terms and conditions stated above are a barefit to the bengain and constitute the antise agreement, hatween Buyer and the labeled seler. Buyer Shall nature the original unopaned seed package to the labeled satise agreement, hatwase for a recent of the purchase price if not accepted under these lagins stater within tendity, days of recent for a refund of the purchase price if not accepted under these lagins NOTICE. REOURED ARBITRATION / CONCILIATION / MEDIATION salay within the days of receptors resume or the purchase price is the every set of the second set of

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| Granite Seed - Denver 490 East 76th Ave., Unit A Denver, CO 80229 | | | 12 of 27 |
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| Mix Name Brannan- Sandy Acres | | B | 3-26956 |
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NOTICE TO BUYER LIM TATIONS OF WARRANTIES AND REMEDIES

Crop yiels and quality are dependent upon many factors beyond the control of the labeled seller and NO WARRANTY is made for crop yield and quality the labeled seller warracts that all used sold has been labeled as regured under apple oble state and for crop yield and quality. The labeled seller warracts that all used sold has been labeled as regured under apple oble state and for crop yield and quality. The labeled seller warracts that all used sold has been labeled as regured under apple oble state and OF ALL OTHER WARRANTIES, EXPRESS OR INFLED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEY OND. THE DESCRIPTION ON THE LABEL. LABEL ş,

No claim shill be assarted against the labeled softer unless Buyer, reports to the labeled softer within a reasonable period after discovery (not to exceed thirty days), any condition that might lead to a complete. BUYER'S EXCUSIVE REMEDY FOR ANY CLAIM OR LOSS RESULTION FROM BREACH OF WARRANTY, BREACH OF CONTRACT OR NEGLIGENCE (INCLUD): 10 BUT NOT LUMTED TO INCIDENTAL OR CONSEQUENTIAL DAMAGES) SHALL BE UMYED TO REPAYMENT OF THE PURCHASE PRICE

By acceptance of the seed, Buyer agrees the terms and conditions stated above are a benefit to the bargain and constitute the entire agreement between Buyer and the lebeled safer, Buyer and return the original unopened seed peckage to the lebeled safer within twenty days of receipt for a refund of the purchase price if not accepted under these terms

NOTICE: REQUIRED ARBITRATION / CONCILIATION / MEDIATION

The seas leve of sev and states including Arkanese, California, Colorado, Florida, Georgia, Idaho, Itinois, Indians, Manesota. Missiestppi, Monians, Non'h Dakote, South Carolina (Section 45-21-200), South Dakote, Texas and Washington require arbitration, conciliation of mediation of disputes in onling Beegal diffectle a stad before certain legal actions may be mainteined agoinst a sallar. Noth Carolina of the an alternative to boat action that allows claims to be im settgiated and head before the Special sallar. Noth Carolina of the an alternative to boat action that allows claims to be im settgiated and head before the Special sallar. Noth Carolina of the an alternative to boat action that allows claims to be im settgiated and head before the Special sallar. Noth Carolina of the an alternative to boat action that allows claims to be im settgiated and head before the Special sallar. Noth Carolina of the analysis of State Carolina of the sallar of the sallar shore to be and the sallar shore to be and the sallar shore the sallar shore to be allowed to the sallar shore to be allowed to the sallar shore to the sallar shore to the sallar shore to be allowed to the sallar shore to be allowed to the sallar shore to the sallar shore to be allowed to the sallar shore to the sallar shore to be allowed to the sallar shore to be allowed to the sallar shore to the sallar shore to the sallar shore to be allowed to the sallar shore to the sallar shore to be allowed to the sallar shore to be a from the stelle Department of Agriculture.

MAIL Call: Powell Restoration ϕ^{*}

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